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EXAMINER

WIENER, ERIC A

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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DETAILED ACTION

1. This action is responsive to the following communications: Amendment filed on 4/30/2009.

This action is made final.

2. Claims 1 – 4, 6, 7, 9 – 17, 19 – 21, and 24 are pending. Claims 1, 12, and 20 are the independent claims. Claims 1, 12, and 20 are the amended claims. Claims 5, 8, 18, 22, 23, and 25 have been cancelled. Claims 1 – 4, 6, 7, 9 – 17, 19 – 21, and 24 have been rejected by the Examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 4, 6, 7, 9 – 17, 19 – 21, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto (US 6,829,009 B2) in view of Hong (KR 2000-0030838) in view of Stockton et al. (2002/0146250 A1) and further in view of Blades et al. (US 5,420,975).

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As per independent claim 1, Sugimoto discloses *a method of controlling a menu of a digital camera with a plurality of operation modes wherein one of said operation modes is in use* (column 3, lines 51 – 57), *the method comprising:*

- *counting a number of times each menu item has been used in each of the plurality of operation modes, determining a number of uses value for each menu item by totaling the number of times each menu item has been used across the plurality of operation modes, and comparing a number of uses value for each menu item* (column 8, lines 3 – 8);
- *determining a display order of the menu items according to the operation mode in use and the result of the comparison* (column 5, line 53 – column 6, line 5; column 7, lines 4 – 20; and column 8, lines 6 – 8); *and*
- *displaying the menu items according to the display order* (column 8, lines 6 – 8).

Sugimoto does not explicitly disclose identifying a user of the camera, that the number of uses value is compared to a reference value, that the menu items are displayed according to a display order that is particular for the identified user, and that the display order of the menu items is also set according to the operation mode in use. Nevertheless, in an analogous art, Hong discloses *identifying a user of the camera* (Constitution, lines 1 – 5), *comparing a number of uses value to a reference number* (Constitution, lines 1 – 4), and *menu items that are displayed according to a display order that is particular for the identified user* (Constitution, lines 1 – 4).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Sugimoto and Hong to determine a display order of menu items from a comparison of the frequency of use to a reference value or based on a user identification, because

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it is only a slight variation of Sugimoto's present invention, which intends to cover all modifications falling within the spirit of the invention (column 9, lines 50 – 53). In addition, Sugimoto already discloses a reference value ("change frequency count") that is examined in relation to frequency values (Sugimoto, column 8, lines 30 – 35). Furthermore, Sugimoto also discloses that camera's are usually used in the user's own way, which is often different from those of other users (Sugimoto, column 1, lines 26 – 29). Therefore, it would be beneficial for a user identification to be used to allow for each user to use the camera in their own way. As such, the ability to use a reference value along with the frequency values or to use user identification would be an obvious modification to Sugimoto's present invention.

In addition, Sugimoto, in column 5, line 53 - column 6, line 5, discloses that "the CPU 64 can also change the display order of the menu items on the screen according to a command from the operation block 70" and that "operation block 70 includes... the mode dial 30," wherein Sugimoto, in column 3, lines 51 – 56, further discloses that the mode dial 30 allows for selection of operation modes. Therefore, it thus may be interpreted from this disclosure that the menu order may be different for different operation modes, because a command from the operation block 70 may be a command pertaining to a change in operation modes through the mode dial 30. Nevertheless, Sugimoto or Hong do not explicitly recite the claim language pertaining to disclosing that the display order of the menu items is also set according to the operation mode in use,

However, one of ordinary skill in the art may look to the analogous art of Stockton, which discloses that different menus are displayed according to the operation mode in use ([0021]).

Sugimoto, Hong, and Stockton all pertain to user interfaces of digital cameras, which include different menus and modes of operation. Consequently, one would look to the other for possibly improving features of their invention. In addition, because it is well known in the art that digital cameras may contain different operating modes, it would be obvious for Sugimoto to realize that the different operating modes would have different menus, and thus contain different menu items pertaining to the particular operating mode, such as disclosed by Stockton. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Sugimoto, Hong, and Stockton. In addition, taking into account the fact that Sugimoto intends to cover all modifications falling within the spirit of the invention (column 9, lines 50 – 53), Sugimoto would obviously want to extend his invention to be able to alter a menu order or initially active menu item according to the menu items of each selectable operating mode, so that his invention would work on all menus of the interface and not just one.

Even though Hong discloses and makes obvious the use of a common reference number threshold used across operation modes, Hong does not explicitly disclose use of a different reference number for different operation modes. Sugimoto and Stockton also do not explicitly disclose such a feature.

Therefore, the analogous art of Blades is referred to, wherein Blades discloses use of a different reference number for different operation modes (column 3, lines 1 – 8). It has been interpreted that the threshold of Blades corresponds to a form of reference number used in comparing with the counter. It has also been interpreted that each actual menu, in addition to each menu's options and submenus, has a corresponding and possibly different reference

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number, wherein different types of operation modes have different types of menus, thus having different reference numbers for different operation modes.

Blades, Sugimoto, Hong, and Stockton all pertain to the analogous art of the use of and alteration of menus within graphical user interfaces, and thus one would look to the others for possible improvements or modifications to their teachings. Blades discloses one such improvement in that it would be desirable to automatically alter a display of user selectable menu options without a direct action by a user (Blades, column 1, lines 42 – 45). Therefore, this desired improvement would serve as an obvious improvement to the analogous menus of Sugimoto, Hong, and Stockton, and thus Sugimoto, Hong, and Stockton would desire to incorporate such methods that allow the use of a different reference numbers for different operation modes. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Sugimoto, Hong, Stockton, and Blades.

As per independent claim 12, Sugimoto discloses *a method of controlling a menu having a plurality of menu items with a static display order of a digital camera with a plurality of operation modes wherein one of said operation modes is in use (column 3, lines 51 – 57), the method comprising:*

- *comparing the number of uses of the menu items to be displayed (column 7, lines 38 – 43);*
- *determining whether a menu item will be initially active from among the menu items to be displayed according to the operation mode in use and the result of the comparison step (column 5, line 53 – column 6, line 5 and column 7, lines 4 – 43),*

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- where it has been interpreted that having the cursor initially set to a menu item sufficiently corresponds to said menu item being initially active; *and*
- *displaying the menu items in the static display order and activating a menu item from among the displayed menu items* (column 7, lines 4 – 43), wherein it has been interpreted that the activated menu item sufficiently corresponds to the menu item of the starting position.

Sugimoto does not explicitly disclose identifying a user of the camera, that the number of uses value is compared to a reference value, that the menu items are displayed according to a display order that is particular for the identified user, and that the display order of the menu items is also set according to the operation mode in use. Nevertheless, in an analogous art, Hong discloses *identifying a user of the camera* (Constitution, lines 1 – 5), *comparing a number of uses value to a reference number* (Constitution, lines 1 – 4), and *menu items that are displayed according to a display order that is particular for the identified user* (Constitution, lines 1 – 4).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Sugimoto and Hong for the same reasons as disclosed in the rejection of claim 1, *supra*.

In addition, Sugimoto, in column 5, line 53 - column 6, line 5, discloses that "the CPU 64 can also change the display order of the menu items on the screen according to a command from the operation block 70" and that "operation block 70 includes... the mode dial 30," wherein Sugimoto, in column 3, lines 51 – 56, further discloses that the mode dial 30 allows for selection of operation modes. Therefore, it thus may be interpreted from this disclosure that the menu order may be different for different operation modes, because a command from the operation

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block 70 may be a command pertaining to a change in operation modes through the mode dial 30. Nevertheless, Sugimoto or Hong do not explicitly recite the claim language pertaining to disclosing that the display order of the menu items is also set according to the operation mode in use,

However, one of ordinary skill in the art may look to the analogous art of Stockton, which discloses that different menus are displayed according to the operation mode in use ([0021]).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Sugimoto, Hong, and Stockton for the same reasons as disclosed in the rejection of claim 1, *supra*.

Even though Hong discloses and makes obvious the use of a common reference number threshold used across operation modes, Hong does not explicitly disclose use of a different reference number for different operation modes. Sugimoto and Stockton also do not explicitly disclose such a feature.

Therefore, the analogous art of Blades is referred to, wherein Blades discloses use of a different reference number for different operation modes (column 3, lines 1 – 8). It has been interpreted that the threshold of Blades corresponds to a form of reference number used in comparing with the counter. It has also been interpreted that each actual menu, in addition to each menu's options and submenus, has a corresponding and possibly different reference number, wherein different types of operation modes have different types of menus, thus having different reference numbers for different operation modes.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Sugimoto, Hong, Stockton, and Blades for the same reasons as disclosed in the rejection of claim 1, *supra*.

As per independent claim 20, Sugimoto discloses *a digital camera capable of controlling an adaptive menu with a static display order, the camera comprising:*

- *an image photographing portion to photograph an object (column 3, lines 7 – 19);*
- *an image processing portion to perform predetermined image processing and output the processed digital image data (column 4, lines 31 – 62);*
- *a recording portion to store the digital image data (column 4, lines 52 – 62);*
- *a display portion to display the menu items (column 6, lines 6 – 19) in the static display order (column 7, lines 13 – 15) and activate the menu items with one menu item initially active (column 7, lines 4 – 7), where it has been interpreted that having the cursor initially set to a menu item sufficiently corresponds to said menu item being initially active,*
- *an operation portion to select a menu item displayed on the display portion (column 6, lines 20 – 25);*
- *a storage portion which is non-volatile and stores number of uses values of the menu items (Figure 4, “68: Display Memory”), wherein the fact that the CPU and display setting processing block communicate with the display memory indicates that said display memory is the storage portion that stores the values, order, and settings pertaining to the menu display;*

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- *a plurality of operation modes wherein one of said operation modes is in use (column 3, lines 51 – 57); and*
- *a control portion to set the initially active menu item among menu items displayed in the static display order according to the operation mode in use and the number of uses of the menu items (column 5, line 53 – column 6, line 5 and column 7, lines 4 – 20);*
- *wherein the control portion determines the initially active menu item according to the size of the number of uses value (column 7, lines 34 – 43).*

Sugimoto does not explicitly disclose identifying a user of the camera, that the number of uses value is compared to a reference value, that the menu items are displayed according to a display order that is particular for the identified user, and that the display order of the menu items is also set according to the operation mode in use. Nevertheless, in an analogous art, Hong discloses *identifying a user of the camera* (Constitution, lines 1 – 5), *comparing a number of uses value to a reference number* (Constitution, lines 1 – 4), and *menu items that are displayed according to a display order that is particular for a separately identified user* (Constitution, lines 1 – 4).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Sugimoto and Hong for the same reasons as disclosed in the rejection of claim 1, *supra*.

In addition, Sugimoto, in column 5, line 53 - column 6, line 5, discloses that "the CPU 64 can also change the display order of the menu items on the screen according to a command from the operation block 70" and that "operation block 70 includes... the mode dial 30," wherein

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Sugimoto, in column 3, lines 51 – 56, further discloses that the mode dial 30 allows for selection of operation modes. Therefore, it thus may be interpreted from this disclosure that the menu order may be different for different operation modes, because a command from the operation block 70 may be a command pertaining to a change in operation modes through the mode dial 30. Nevertheless, Sugimoto or Hong do not explicitly recite the claim language pertaining to disclosing that the display order of the menu items is also set according to the operation mode in use,

However, one of ordinary skill in the art may look to the analogous art of Stockton, which discloses that different menus are displayed according to the operation mode in use ([0021]).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Sugimoto, Hong, and Stockton for the same reasons as disclosed in the rejection of claim 1, *supra*.

Even though Hong discloses and makes obvious the use of a common reference number threshold used across operation modes, Hong does not explicitly disclose use of a different reference number for different operation modes. Sugimoto and Stockton also do not explicitly disclose such a feature.

Therefore, the analogous art of Blades is referred to, wherein Blades discloses use of a different reference number for different operation modes (column 3, lines 1 – 8). It has been interpreted that the threshold of Blades corresponds to a form of reference number used in comparing with the counter. It has also been interpreted that each actual menu, in addition to each menu's options and submenus, has a corresponding and possibly different reference

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number, wherein different types of operation modes have different types of menus, thus having different reference numbers for different operation modes.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Sugimoto, Hong, Stockton, and Blades for the same reasons as disclosed in the rejection of claim 1, *supra*.

As per claim 2, and taking into account the rejection of claim 1, Sugimoto further discloses *determining whether a menu item is selected by the user among the displayed menu items, increasing the number of uses value for the selected menu item, and storing the number of uses value* (column 8, lines 3 – 6).

As per claim 3, and taking into account the rejection of claim 1, Sugimoto further discloses that *during the display order determination step, the set display order is not changed when a menu item having the number of uses which is greater than the reference number does not exist* (Constitution, lines 1 – 4).

As per claim 4, and taking into account the rejection of claim 1, Hong further discloses *changing a menu display when a menu item has a number of uses value greater than the reference number* (Constitution, lines 1 – 4).

In addition, Sugimoto discloses that *in changing the menu display, the display order of the menu items is changed according to the order of the number of uses* (column 8, lines 6 – 8).

It would have further been obvious to combine this feature of Hong with Sugimoto and Stockton for the same reasons as disclosed in the rejection of claim 1, *supra*.

As per claim 6, and taking into account the rejection of claim 1, Hong further discloses that *the reference number can be set by the user* (Constitution, lines 1 – 4), wherein it would have further been obvious to combine this feature of Hong with Sugimoto and Stockton for the same reasons as disclosed in the rejection of claim 1, *supra*.

As per claim 7, and taking into account the rejection of claim 1, Hong further discloses that *the reference number is preset to a default value* (Constitution, lines 1 – 4), wherein the initial setting of numbers to default values is well known in the art and it is obvious that the reference number would be preset to a default value before being changed by a user, further wherein it would have further been obvious to combine this feature of Hong with Sugimoto and Stockton for the same reasons as disclosed in the rejection of claim 1, *supra*.

As per claim 9, and taking into account the rejection of claim 1, Sugimoto further discloses that *the first displayed menu item is initially active during the display operation* (column 7, lines 50 – 51), where it has been interpreted that having the cursor initially set to a menu item sufficiently corresponds to said menu item being initially active.

As per claim 10, and taking into account the rejection of claim 1, Sugimoto further discloses that *the stored number of uses values may be altered by the user* (column 8, lines 3 – 6).

As per claim 11, and taking into account the rejection of claim 2, Sugimoto further discloses that *the menu order is immediately updated after a menu item is selected* (column 8, lines 19 – 24).

As per claim 13, and taking into account the rejection of claim 12, Sugimoto further discloses *determining whether a menu item is selected by the user among the displayed menu*

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items, increasing the number of uses value of a selected menu item when the menu item is selected, and storing the number of uses value (column 7, lines 38 – 43).

As per claim 14, and taking into account the rejection of claim 12, Hong further discloses that *the step of determining whether a menu item will be initially active further comprises: when there is no number of uses value of a menu item greater than the reference number, not changing which menu item is initially active* (Constitution, lines 1 – 4), wherein it would have further been obvious to combine this feature of Hong with Sugimoto and Stockton for the same reasons as disclosed in the rejection of claim 1, *supra*.

As per claim 15, and taking into account the rejection of claim 12, Hong further discloses *changing a menu display when a menu item has a number of uses value greater than the reference number* (Constitution, lines 1 – 4).

In addition, Sugimoto discloses that *the changing of the menu display includes setting the menu item having the largest number of uses value as the initially active menu item* (column 7, lines 34 – 43).

It would have further been obvious to combine this feature of Hong with Sugimoto and Stockton for the same reasons as disclosed in the rejection of claim 1, *supra*.

As per claim 16, and taking into account the rejection of claim 12, Hong further discloses that *the reference number can be set by the user* (Constitution, lines 1 – 4), wherein it would have further been obvious to combine this feature of Hong with Sugimoto and Stockton for the same reasons as disclosed in the rejection of claim 1, *supra*.

As per claim 17, and taking into account the rejection of claim 12, Hong further discloses that *the reference number is preset to a default value* (Constitution, lines 1 – 4),

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wherein the initial setting of numbers to default values is well known in the art and it is obvious that the reference number would be preset to a default value before being changed by a user, further wherein it would have further been obvious to combine this feature of Hong with Sugimoto and Stockton for the same reasons as disclosed in the rejection of claim 1, *supra*.

As per claim 19, and taking into account the rejection of claim 12, Sugimoto further discloses that *the stored number of uses values may be altered by the user* (column 7, lines 38 – 43).

As per claim 21, and taking into account the rejection of claim 22, Sugimoto further discloses that *the operation portion comprises directional movement buttons to allow selection of the menu items displayed on the display portion to the upper, lower, left, and right sides of the initially active menu item and a selection button to select the menu item* (column 6, lines 6 – 25).

As per claim 24, and taking into account the rejection of claim 22, Sugimoto further discloses that *the control portion determines the initially active menu item to be the menu item with the largest number of uses value* (column 7, lines 34 – 43).

Response to Arguments

5. Applicant's arguments filed on 4/30/2009 have been fully considered, but are moot in view of new grounds of rejection necessitated by amendment.

Conclusion

6. It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any

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way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

7. *The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The cited documents represent the general state of the art.*

8. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric A. Wiener whose telephone number is 571-270-1401. The examiner can normally be reached on Monday through Thursday from 9am to 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo, can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Eric Wiener/
Examiner, Art Unit 2179

/Ba Huynh/
Primary Examiner, Art Unit 2179